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Knowledge of label claim pesticides to the vegetable growers

Sachin A Khedkar, Sandip D Patil and Ritesh L Patil

Abstract

The present study entitled, “Knowledge of label claim pesticides to the vegetable growers” was undertaken in the Ahmednagar district of Maharashtra state to know the extent of knowledge of vegetable growers regarding label claim pesticides. Ex-post-facto research design was used by selecting 120 respondents vegetable growers. The data was collected and analyzed by using frequency and percentage. From study, it was observed that, 50.83 per cent respondents had medium knowledge level. Further it was found that, very large numbers of respondents don’t know about the insecticide act 1968, were unaware about the Central Insecticide Board & Registration Committee, never read the instructions given on label claim pesticides before spraying, doesn’t use quantity of the pesticides as per recommendations and doesn’t take care as per recommendations while spraying. From the study, it can be concluded that, there was tremendous unawareness and lack of information regarding the label claim pesticides amongst the vegetable growers. Therefore, State Agriculture Universities and KVK’s should organised specialised training on the knowledge and use of label claim pesticides.

Keywords: Knowledge, label claim pesticides, vegetable growers

Introduction

Plant protection plays a vital role in successful crop production. Pesticides are the most essential agricultural inputs for protecting crop plants from pest and disease and increasing agricultural production. However, indiscriminate use of pesticides has adverse ecological and socio-economic effects. Pesticides can cause resurgence by killing the natural enemies of the targeted insect pests, resistance and residues in agricultural commodity and significantly increase crop losses. Therefore, the present study entitled, “Knowledge of label claim pesticides to the vegetable growers” was undertaken to know the extent of vegetable growers knowledge regarding label claim pesticides.

Materials and Methods

The present study was undertaken in six villages of Rahuri and Sangamner tahsils of Ahmednagar district of Maharashtra state by following the “Ex-post-facto” research design. Total 120 respondents were selected by simple random sampling technique for the present study. The data was collected through personal interview method using well structured interview schedule and analysed by frequency, percentage, mean and standard deviation. For measuring the knowledge level of the respondents, two point continuums were used and the numerical value was assigned to the responses received from the respondents. This variable was measured by using the procedure with slight modifications^[2]. The knowledge level was calculated by using following formula.

$$\text{Knowledge level} = \frac{\text{Actually obtained knowledge score}}{\text{Maximum obtainable knowledge score}} \times 100$$

Results and Discussion

A. Knowledge of vegetable growers regarding label claim pesticides

The term knowledge is operationalized as a result of information possessed by the vegetable growers about label claim pesticides. The information regarding the knowledge of the respondents about label claim pesticides was collected, tabulated and analyzed. The results are presented in Table 1.

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Table 1: Distribution of the respondents according to their overall knowledge level

Sl. No.	Category (score)	Respondents (N=120)	
		Number	Percentage
1.	Low (Up to 33.33)	47	39.17
2.	Medium (33.34 to 66.66)	61	50.83
3.	High (66.67 and above)	12	10.00
Total		120	100.00

Table 1 revealed that, nearly half of the respondents (50.83 %) had medium knowledge level, followed by 39.17 per cent respondents had low knowledge level and only 10.00 per cent respondent vegetable growers had high knowledge level.

Table 2: Statements wise response of the vegetable growers to the knowledge of label claim pesticides

Sl. No.	Statements	Respondents (n=120)	
		Yes	No
1.	Do you know about insecticide act 1968 ?	20 (16.67%)	100 (83.33%)
2.	Do you know about the Central Insecticide Board and Registration Committee (CIB & RC) ?	15 (12.50%)	105 (87.50%)
3.	Do you know what is mean by label claim pesticide/s ?	15 (12.50 %)	105 (87.50%)
4.	Prior to spraying of pesticides do you read the instructions given on the label of pesticides ?	31 (25.83 %)	89 (74.17%)
5.	Do you read the brochure available before spraying pesticides on vegetable crops ?	63 (52.50 %)	57 (47.50%)
6.	Do you use recommended quantity of pesticides according to label claim while spraying the pesticides on vegetable crops ?	42 (35.00%)	78 (65.00%)
7.	Do you know the pesticides should be mixed thoroughly in prescribed quantity of water as per label claim ?	91 (75.83%)	29 (24.17%)
8.	Do you know the waiting period of pesticide ?	92 (76.67%)	28 (24.33%)
9.	While spraying the pesticides on vegetable crops, do you take appropriate care as per the label claim (e.g. gloves /apron /masks /shoes etc.) ?	55 (45.83%)	65 (50.17%)
10.	Do you know about the Agro Service Centers who are selling only label claim pesticides ?	14 (11.66%)	106 (88.34%)
11.	Do you know about the side effects of pesticides on crops that are released from the label claim on vegetable crops ?	105 (87.50%)	15 (12.50%)
12.	Do you know about the side effects of pesticides on humans and animals that have been label claim on vegetable crops ?	117 (97.50%)	03 (02.50%)

It is revealed from the data presented in table 2 that, majority of the respondents (83.33 per cent) don't know about the insecticide act 1968. Similarly very large numbers of respondents were unaware about the Central Insecticide Board & Registration Committee about the label claim pesticides (87.50 per cent). About three fourth (74.17 per cent) of the respondents never read the instructions given on label claim pesticides before spraying. Nearly two third (65.00 per cent) doesn't use quantity of the pesticides as per recommendations, 50.17 per cent of respondents doesn't take appropriate care as per recommendation while spraying, 24.33 per cent respondents unaware about the waiting period of pesticides, 24.17 per cent respondents didn't follow proper mixing before spraying. But at the same time, large majority of them know the adverse and ill effects of pesticides on human and animal (97.50 per cent) and crops (87.50 per cent). From the table 2, it is concluded that, there is tremendous unawareness and lack of information about the label claim pesticides amongst the vegetable growers. Some findings are in line with the findings of [2].

Conclusion

From the study, it is concluded that, majority of the vegetable growers had medium level of knowledge about label claim pesticides and there is tremendous unawareness and lack of information about the label claim pesticides amongst the vegetable growers. Therefore, it is recommended that State Agriculture Universities and KVK's should organised specialised training on the knowledge and use of label claim pesticides. Besides this State Agriculture Department also keep monitor the sale of label claim pesticides through Agro Service Centres.

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Thus, it is concluded that, majority (50.83 per cent) of the respondents belonged to medium knowledge category.

This findings are consistent with the findings of [1, 3 & 4].

B. Statements wise knowledge response of the vegetable growers

By reviewing the literature and discussed with the experts twelve statements were formulated and questions were asked to collect the response of vegetable growers regarding the knowledge of label claim pesticides. The results regarding the statements wise knowledge response of the vegetable growers about label claim pesticides is presented in Table 2.

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